



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,542	06/09/2006	Masato Tsukada	Q95376	4754
23373 7590 05/02/2008 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER MENON, KRISHNAN S				
ART UNIT		PAPER NUMBER		
1797				
MAIL DATE		DELIVERY MODE		
05/02/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/582,542

Applicant(s)

TSUKADA, MASATO

Examiner

JUAN E. VAUGHAN II

Art Unit

1795

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Response to Amendment

2. The amendment filed February 14, 2008 has been entered and fully considered.
3. Claims 1-6 and 8-12 remain pending in this application.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-6 and 8-12 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicants regard as their invention.
6. Evidence that claims 1-12 fail to correspond in scope with that which applicants regard as the invention is based on the inclusion of "measured according to ISO 4288" in claims 1-6 and 8-12. Applicants' use of the aforementioned phrase can be construed to be a part of the claimed invention.
7. Claim Rejections - 35 USC § 102/35 USC § 103
8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 1774

2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over TOMITA et al (US 2002/0182538 A1).

a. With respect to claims 1 and 8, TOMITA et al. disclose a lithographic printing plate precursor comprising an aluminum support having formed thereon an anodic oxide film (grained and anodized aluminum support), and an image-forming layer (heat sensitive layer) containing a light/heat converting agent or a light-sensitive layer capable of image-forming with infrared laser exposure provided on the anodic oxide film ([0025] & [0029]). The heat sensitive layer described therein is further characterized by not particularly being restricted so long as it is a heat-

sensitive layer capable of forming an image by infrared laser exposure. For instance, a heat-sensitive layer containing a fine particle polymer having a heat-reactive functional group or microcapsules containing a compound having a heat-reactive functional group, and a heat-sensitive layer containing an infrared absorber and a high molecular compound insoluble in water but soluble in an alkali aqueous solution, whose solubility in an alkali developing solution changes and becomes to be capable of writing by infrared laser exposure can be exemplified ([0329]). TOMITA et al. further disclose the heat sensitive layers having dissolution inhibitors ([0392]), of which preferred examples include polymers comprising siloxane and/or perfluoroalkyl units according to the present invention. Additionally, the positive heat sensitive elements with aluminum supports are disclosed as having Ra values of 0.1 to 0.5 μm ([0090]) and aluminum oxide is disclosed at 1-10g/m², preferably 1.5-7g/m² ([0305]). TOMITA et al. also disclose a sealing treatment to seal the pores of the oxide film with a metallic oxide, a hydroxide or a salt (hydrophilic surface comprising a salt of titanium, hafnium, or zirconium). Examples of the sealing agents include potassium hexafluorotitanate and sodium hexafluorozirconate, which meet the limitations of the salt of titanium, hafnium, or zirconium comprising the hydrophilic surface in the present invention ([0117]-[0119]). Additionally, TOMITA et al. disclose the process for the synthesis of an alkali-soluble resin containing siloxane structure ([0392]). This siloxane containing resin is present in the light sensitive coating of the examples [0391]. Particularly, TOMITA et al. disclose MCR-E11 as an epoxy type terminal reactive silicon ([0392]). The chemical name for MCR-E11 is mono-(2,3-epoxy)propylether terminated polydimethylsiloxane. Thus, MCR-E11 meets the limitations of a graft-polymer of a poly(alkylene oxide) comprising siloxane. Although TOMITA et al. are silent with respect to the formation of a separate layer containing the siloxane resin, it is the examiner's position that the siloxane resin will form a separate layer because chemical compositions are inseparable from their characteristics (MPEP 2112).

b. With respect to claim 2, as discussed above, examples of sealing agents which meet the limitations of the salt of titanium, hafnium, or zirconium can further include fluoride, such as potassium hexafluorotitanate and sodium hexafluorozirconate ([0119]).

c. With respect to claim 3, TOMITA et al. ([0117]-[0128]) disclose adding phosphorous compounds to the treating solution. Several salts of phosphoric acid are disclosed as representative sealing agents in paragraphs [0121] and [0124]. It is known to one of ordinary skill in the art that an orthophosphate is a crystal or salt of phosphoric acid.

d. With respect to claim 4, as discussed above, TOMITA et al. ([0090]) disclose the hydrophilic surface with a surface roughness between 0.1 and 0.5 μm . The Ra value of 0.3 μm falls within the range taught by TOMITA et. al.

e. With respect to claims 5 and 6, as discussed above, TOMITA et al. disclose aluminum support comprising aluminum oxide in amounts of 1 to 10 g/m^2 , preferably 1.5-7 g/m^2 ([0305]). This range provided by TOMITA et al. meets the limitations of claims 5 and 6.

f. With respect to claims 7 and 8,

g. With respect to claim 9, TOMITA et al. ([0175]) disclose another dissolution inhibitor meeting the current limitations for the same, which is an organic compound comprising an aromatic group and a hydrogen bonding site. Specific examples disclosed in TOMITA et al. that meet the above limitation include triisopropyl naphthalenesulfonic acid and 2,5-dimethylbenzenesulfonic acid.

h. With respect to claim 10, TOMITA et al. teach: for further sensitivity, cyclic acid anhydrides, phenols, and organic acids can be used in the light sensitive layer ([0177]) which meets the present limitations for the dissolution accelerator. Specific examples include phthalic anhydride, bisphenol, and p-toluenesulfonic acid.

i. With respect to claims 11, TOMITA et al. ([0107]) disclose a metal support having formed thereon an anodic oxide (graining and anodizing an aluminum support), ([0117-0119]) a sealing treatment with a metallic oxide, a hydroxide, or salt (treating said grained and anodized aluminum support with a solution comprising a salt of titanium, hafnium, and zirconium), ([0329]) a heat-sensitive layer containing an infrared absorber and a high molecular compound whose solubility in an alkali developing solution changes and becomes to be capable of writing by infrared laser exposure (heat-sensitive oleophilic coating comprising a hydrophobic polymer), image exposure development ([0276]-[0279]), (image-wise exposing said heat-sensitive coating to infrared light or heat, and developing said image-wise exposed heat-sensitive coating), ([0175]) a thermal positive type image-forming layer with a compound in combination which lowers the solubility of the high molecular compounds (positive-working lithographic printing plate precursor and dissolution inhibitor), ([0090]) a mechanical surface treatment for obtaining surface roughness of 0.1 to 0.5 μ m (surface roughness less than 0.4 μ m). As discussed in claim 1 above, TOMITA et al. disclose the process for the synthesis of an alkali-soluble resin containing siloxane structure ([0392]). This siloxane containing resin is present in the light sensitive coating of the examples [0391]. Particularly, TOMITA et al. disclose MCR-E11 as an epoxy type terminal reactive silicon ([0392]). The chemical name for MCR-E11 is mono-(2,3-epoxy)propylether terminated polydimethylsiloxane. Thus, MCR-E11 meets the limitations of a graft-polymer of a poly(alkylene oxide) comprising siloxane. Although TOMITA et al. are silent with respect to the formation of a separate layer containing the siloxane resin, it is the examiner's position that the siloxane

resin will form a separate layer because chemical compositions are inseparable from their characteristics (MPEP 2112).

TOMITA et al. disclose all of the limitations of the presently claimed application. However, in the alternative, the presently claimed application would have been obvious in light of all that TOMITA teaches.

Response to Arguments

12. Applicant's arguments filed on February 14, 2008 have been fully considered but they are not persuasive.

13. With respect to the rejection under 35 U.S.C 112, second paragraph, applicant argues that presence of the ISO standard in the claim is analogous to a unit of measure set forth immediately after recitation of a numerical range and that the inclusion of a well-established, standardized test in a claim is not improper. The examiner disagrees.

Applicant's presumption that the presence of the ISO standard in the claim is analogous to a unit of measure set forth immediately after recitation of a numerical range is incorrect. "Units of measure" measure dimensions or properties of matter or an object. As used in the claim, "measured according to ISO 4288" suggests that the surface roughness of the hydrophilic surface must be measured according to this particular standard in order to have the same properties or to perform in the same manner. Applicant is advised to submit an additional reference explaining how the standard is recognized for claims 1-6 and 8-12.

14. With respect to the anticipation rejection, applicant argues that TOMITA does not disclose or suggest the preparation of the claimed invention which includes a water

Art Unit: 1774

repellant polymer as a dissolution inhibitor, nor the inclusion of a block or graft copolymer containing polyalkylene oxide and polysiloxane or fluoroalkyl. The examiner disagrees. TOMITA et al. disclose the process for the synthesis of an alkali-soluble resin containing siloxane structure ([0392]). This siloxane containing resin is present in the light sensitive coating of the examples [0391]. Particularly, TOMITA et al. disclose MCR-E11 as an epoxy type terminal reactive silicon ([0392]). The chemical name for MCR-E11 is mono-(2,3-epoxy)propylether terminated polydimethylsiloxane. Thus, MCR-E11 meets the limitations of a graft-polymer of a poly(alkylene oxide) comprising siloxane. Although TOMITA et al. are silent with respect to the formation of a separate layer containing the siloxane resin, it is the examiner's position that the siloxane resin will form a separate layer because chemical compositions are inseparable from their characteristics. TOMITA teaches the same chemical composition as instantly claimed and the composition is applied to a substrate and would be expected to separate from the rest of the coating material as it is the same composition applicant claims, absent any evidence to the contrary. (MPEP 2112, In re Best)

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 1774

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUAN E. VAUGHAN II whose telephone number is (571)270-5125. The examiner can normally be reached on Monday - Friday 8AM-5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JEV II

/Cynthia H Kelly/
Supervisory Patent Examiner, Art Unit 1795